

2. Slightly rotate the rotor/starter clutch assembly *clockwise* in order to install the rotor onto the shoulder on the starter driven gear. Align the keyway in the rotor with the Woodruff key when installing the rotor.
3. Make sure the locating dowels are in place and install a new gasket (**Figure 25**).
4. Install the left-hand crankcase cover.
5. Shift the transmission into **NEUTRAL** and install the neutral indicator and the E-clip.
6. Connect the electrical connector from the stator assembly.
7. Apply a light coat of grease to the oil seal (B, **Figure 21**) in the left-hand crankcase cover.
8. Align the flats on the recoil starter driven pulley with the notches in the alternator rotor. Then install the recoil starter driven pulley. Make sure the pulley is properly engaged with the rotor.
9. Install the washer, O-ring seal and the bolt securing the recoil starter driven pulley. Tighten the rotor bolt to 40-45 N•m (29-33 ft.-lb.).
10. To keep the driven pulley from turning, hold it with a long screwdriver as shown in **Figure 19**.

Stator Removal/Installation (ATC125M)

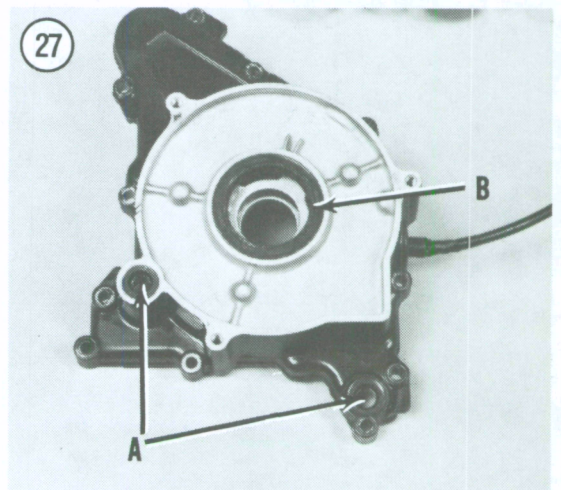
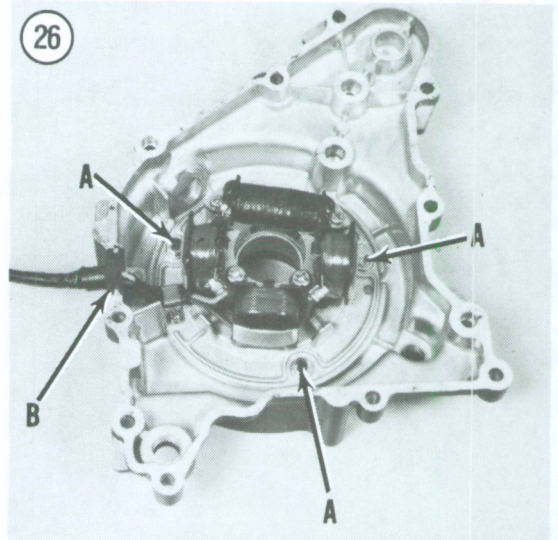
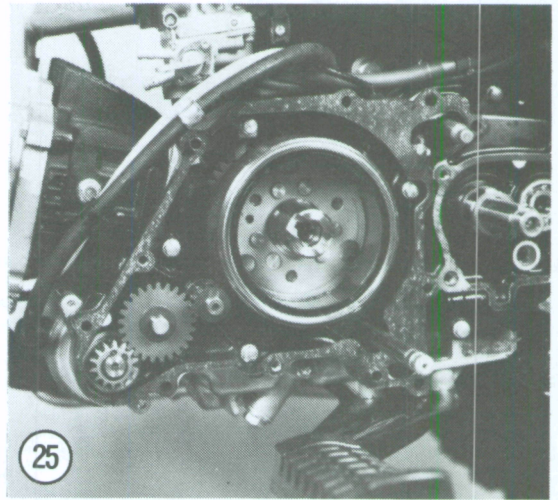
1. Perform Steps 1-10 of *Rotor Removal (ATC125M)* in this chapter.
2. Remove the bolts (A, **Figure 26**) securing the stator assembly to the left-hand crankcase cover.
3. Pull the grommet (B, **Figure 26**) and electrical harness out of the left-hand crankcase cover.
4. Remove the stator assembly.
5. Install by reversing these removal steps, noting the following.
6. Make sure the smaller O-ring seals (A, **Figure 27**) and the crankshaft oil seal (B, **Figure 27**) are in place and in good condition. Replace if necessary.

ALTERNATOR (INNER ROTOR TYPE)

The inner rotor type alternator used on all ATC90 and 1979-1980 ATC110 models is shown in **Figure 28**.

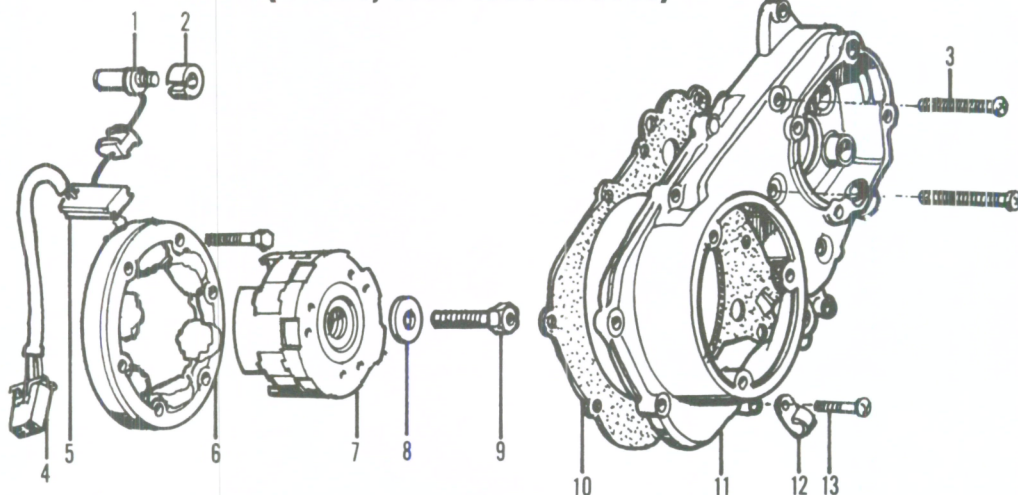
Rotor Removal/Installation

1. Place the ATC on level ground and set the parking brake.
2. Remove the seat/rear fender assembly.
3. Remove the fuel tank as described in Chapter Six.
4. Remove the gearshift pedal.
5. Remove the recoil starter assembly as described in Chapter Four.



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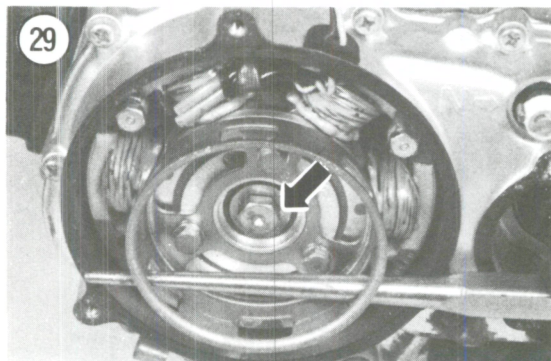
INNER ROTOR ALTERNATOR (ATC90, 1979-1980 ATC110)



1. Neutral switch
2. Spacer
3. Screw
4. Electrical connector
5. Grommet
6. Stator assembly
7. Rotor

8. Washer
9. Bolt
10. Gasket
11. Left-hand crankcase cover
12. Clip
13. Screw

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6. Insert a long drift or metal rod through the openings in the recoil starter pulley and remove the bolt (Figure 29) securing the rotor. On models so equipped, remove the lockwasher.

CAUTION

Don't try to remove the rotor without a puller; any attempt to do so will ultimately lead to some form of damage to the engine and/or rotor. Many aftermarket pullers are available from most motorcycle dealers or mail

order houses. The cost of one of these pullers is low and it makes an excellent addition to any mechanic's tool box. If you can't buy or borrow one, have a dealer remove the rotor.

7. Screw in a flywheel puller until it stops. Use the Honda flywheel puller (part No. 07933-2160000) or equivalent.

8. Hold the puller and tap on the cross bar with a rubber mallet until the rotor disengages from the crankshaft.

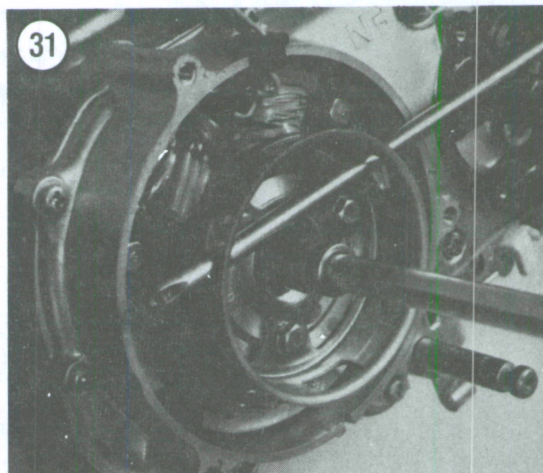
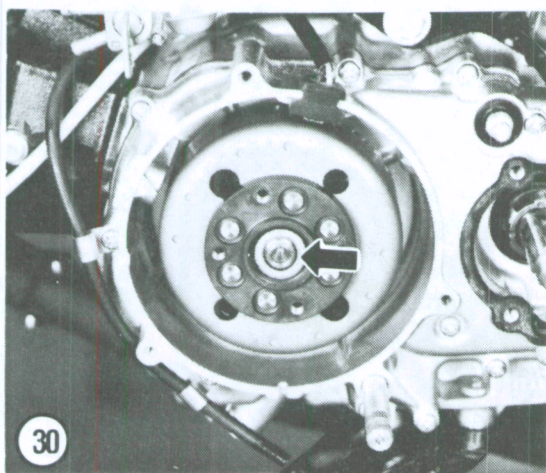
CAUTION

If normal rotor removal attempts fail, do not force the puller as the threads may be stripped out of the rotor causing expensive damage. Take it to a dealer and have it removed.

NOTE

If the rotor is difficult to remove, strike the puller with a hammer a few times. This will usually break it loose. Do not hit the rotor.

9. Remove the rotor and puller. Don't lose the Woodruff key on the crankshaft.



CAUTION

Carefully inspect the outside of the rotor for small bolts, washers or other metal "trash" that may have been picked up by the magnets. These small metal bits can cause severe damage to the alternator stator plate components.

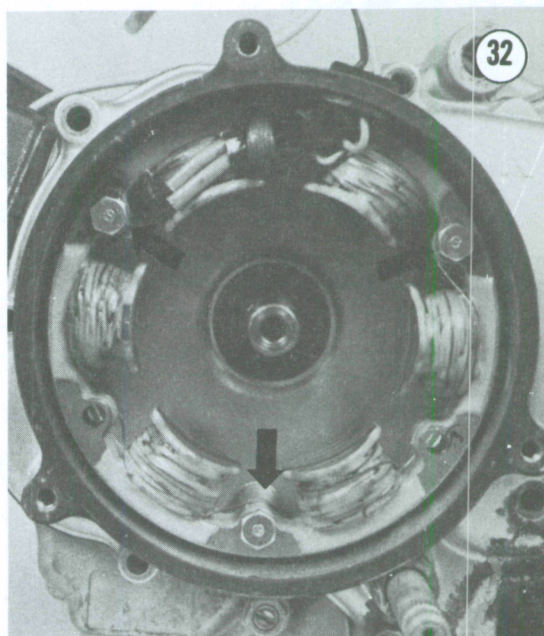
10. Install by reversing these removal steps, noting the following.
11. Make sure the Woodruff key is in place on the crankshaft and align the keyway in the rotor with the key when installing the rotor.
12. On models so equipped, be sure to install the washer (Figure 30) prior to installing the rotor bolt. Install the rotor nut.
13. To keep the rotor from turning, use the same tool set-up (Figure 31) used during removal.
14. Tighten the rotor bolt to 26-32 N•m (19-23 ft.-lb.).

Stator Removal/Installation

1. Remove the rotor as described in this chapter.
2. Disconnect the electrical connector from the stator assembly to the wiring harness.
3. Remove the bolts (Figure 32) securing the stator assembly to the left-hand crankcase cover.
4. Pull the grommet and electrical harness out of the left-hand crankcase cover.
5. Remove the stator assembly.
6. Install by reversing these removal steps.

ROTOR TESTING

The rotor is permanently magnetized and cannot be tested except by replacement with a rotor known to be good. A rotor can lose magnetism from old age or a sharp blow. If defective, the rotor must be replaced; it cannot be remagnetized.



STATOR COIL TESTING

Honda does not provide continuity nor resistance specifications for all models. Specifications are available for the following models only:

- a. 1981-on ATC110.
- b. ATC125M.

It is not necessary to remove the stator assembly to perform the following tests. It is shown removed in the following procedures for clarity. All tests are performed at the electrical connector (Figure 20). Tests points are either between the different pins within the connector or between the different pins and ground.

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